

LESSON 1: Poisons That Look Like Food

Note: To prepare for Lesson 3 in Unit 5, begin collecting at least ten empty and rinsed out containers (after the contents have been used up or disposed of properly) with warning labels. You might be able to get some of these from a school custodian and some from your home. Be sure to rinse each container thoroughly and close it tightly. These containers can also be used in Lesson 2.

LESSON'S CONCEPT

Household hazardous products should not be handled by children. Some household hazardous products can sometimes be mistaken for food and should be kept away from children.

PURPOSE

Students will learn that some hazardous products appear safe to eat and might even look like items that they have eaten before. They will understand that they should never use or touch hazardous products or put things in their mouths without the permission of an adult.

OVERVIEW

In this lesson students will:

- Make a list of hazardous household products that should not be touched, smelled, or eaten.
- Observe how unsafe products can look like products that are safe to eat.
- Sing a song about the importance of seeking the advice of an adult before eating something.
- Be presented with several scenarios concerning household hazardous products and discuss what they should do.

CORRELATIONS TO CALIFORNIA'S CONTENT STANDARDS AND FRAMEWORKS AND TO BENCHMARKS FOR SCIENCE LITERACY

- Students classify products according to those that are safe and those that are not safe to eat, smell, or touch. Students learn about poisonous substances, including the fact that some look like food. They apply this knowledge to avoid products they do not recognize.
 - "Human beings can use the memory of their past experiences to make judg-

ments about new situations." (*Benchmarks for Science Literacy*, page 140)

- "Some things people take into their bodies from the environment can hurt them." (*Benchmarks for Science Literacy*, page 144)
- "Students collect information about objects and events in their environment." (*Mathematics Content Standards for California Public Schools, Kindergarten Through Grade Twelve*, page 3)
- Students "describe the properties of common objects." (*Science Content Standards, Grades K-12; Kindergarten; Investigation and Experimentation, Standard 4b*)
- Students describe in their journals some products that are safe to eat and those that should not be touched, smelled, or eaten because they can be poisonous.
 - Students "write brief expository descriptions of a real object, person, place, or event, using sensory details." (*English-Language Arts Content Standards for California Public Schools, Kindergarten Through Grade Twelve*, page 8)

SCIENTIFIC THINKING PROCESSES

observing, communicating, comparing, classifying

TIME

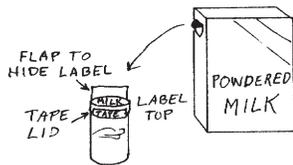
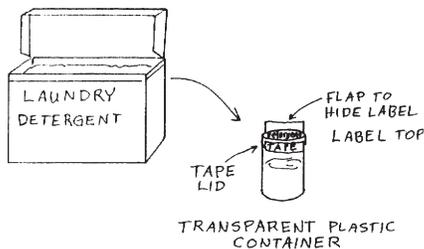
60 minutes to prepare for the lesson and 60 minutes to implement the lesson

VOCABULARY

household hazardous products, poisons

PREPARATION

1. Read the "Background Information for the Teacher" on page 208 in this lesson.
2. Obtain four or more of the household hazardous and, therefore, "not safe" products and their look-alike safe products listed in the "Table of Unsafe Products and Their Safe Look-Alikes." Place the contents of each unsafe product and its safe look-alike in transparent plastic jars with screw-on lids. If possible, use clean used jars, like peanut butter jars. (Only one product should be in each jar.) For example, for unsafe products use laundry detergent, orange-colored liquid to represent disinfectant, and yellow-colored liquid to represent lemon furniture oil. For correspondingly safe look-alikes, use powdered milk, apple juice, and a lemon-flavored drink.
 - Cap the products tightly and tape the lid to "not safe" products as an added precaution.
 - Write the name of the product on a piece of tape on top of the jar, and place a piece of paper over the label so students can't read it. (See illustration.)



3. Mix orange-colored water (e.g., use orange drink mix or food coloring) in a soda bottle. This will represent a cleaning product. Cap the bottle tightly. This will be used in the "Application" section of this lesson.
4. Arrange a display of some unsafe products before class begins. Have the safe look-alikes ready to show to students.
5. Prepare a letter to parents or guardians to

be used for the homework assignment. (See example of "Letter to Parents or Guardians" by Christina Lucas on page 210.)

6. Obtain the telephone number of the poison control center (contact your county's health department). Write this number in the letter to parents or guardians. Also obtain the telephone number for information on household hazardous waste disposal (contact a solid waste disposal company, city or county department of public works, or other governmental agency in your community responsible for household hazardous waste). Ask both agencies for information packets; then photocopy appropriate sections for students. Distribute the poison control center's information at the end of this lesson. Keep the household hazardous waste disposal information to give to students in Lesson 3.

Note: Representatives from health agencies and poison control centers may be available to speak to students.

MATERIALS

- Butcher paper on which to write a list
- A display of four or more of the "not safe" and the "safe" products
- The unsafe and safe look-alike products in transparent plastic jars with lids
- Orange-colored water (e.g., from orange drink mix) in a sealed soda bottle
- Letter to parents or guardians

PRE-ACTIVITY QUESTIONS

- A. Ask students what products they eat at home. *Cereal, cookies, bread, peanut butter and jelly, pizza, apples, cheese.*
- B. Explain to students that some products found in the home are safe to eat, smell, or touch, while other products are not safe to eat, smell, or touch. Many things that are not safe will make people very sick; they are called poisons.
 - Ask students what types of things they might have seen at home that might be poisons. List these on butcher paper. *Things under the sink in the kitchen, like cleaning stuff, bleach, medicines, bug spray,*

floor wax, alcohol. (Keep this list to add to later during this lesson and in Lesson 2.)

- Ask, “Should you ever touch, smell, or taste the products we just listed?” No. “Why not?” *Because they are poisonous.*
- Discuss why people might have poisonous products in their homes. *To help clean things; to make things beautiful, like painting a room; to help plants grow; because they need medicine which the doctor said is okay for them to take, but is not okay for someone else to take.*

Why you should never touch, smell, or taste poisonous products.

- *They can burn your skin.*
- *They can make you unconscious.*
- *You can die.*
- *They can give you brain damage.*
- *You can get really, really sick.*
- *Some can damage your organs inside.*
- *Some can cause birth defects.*
- *Some can burn your throat.*

Submitted by Kathy Jones’s second-grade class, Shasta Elementary School, Chico Unified School District.

Reasons why we might have poisonous products at home:

- *To kill black widow spiders and ants*
- *To shine floors*
- *To use when someone in the house is sick*
- *To take our temperature (mercury in thermometer)*
- *To clean wounds*

Submitted by Ted Schut’s first-grade class, Ripona Elementary School, Ripon Unified School District.

PROCEDURE

- A.** Ask students to think of examples of poisonous things that can look like things that are safe to eat. *Mushrooms in nature and mushrooms at the store; pills that look like candy; rubbing alcohol and some alcoholic beverages that look like water.*

Examples of poisonous things that can look like food:

- *Some shampoos can look like pancake syrup.*
- *Laundry soap can look like powdered sugar.*
- *Cough drops and some vitamins can look like candy.*

Submitted by Anne Harris’s first-grade class, Jefferson Elementary School, Cloverdale Unified School District.

- B.** Tell students that they are going to learn how some unsafe products can look like products that are safe to eat. Show them the display of unsafe products in transparent plastic jars. (Keep the safe products out of sight.)

- Tell students you want them to look at the jars and guess what the products in these jars might be. Instruct students to file by and look at the display.

Note: Older students can describe in their journals what they see and what they think is in each container.

- When students have completed looking at the displays (and writing in their journals), point to the products, one at a time, and ask what they look like.
- Encourage students to expand their answers, such as, “It looks like dried milk.” “It looks like apple juice.” “It looks like a lemon drink.” “It is clear, it looks like water.” Accept all answers. If a student guesses the actual unsafe product, just accept this answer along with all the rest.

Responses from students’ journals concerning products that look safe to eat, to drink, or to be used in preparing foods:

- *It’s white, powdery stuff; it looks like flour or powdered sugar.*
- *It’s a clear liquid; it looks like water.*
- *It’s a yellow liquid; it looks like apple juice.*
- *It’s a yellow liquid; it looks like corn oil.*
- *They look like white spheres and are shiny; they look like sugar balls or marshmallow.*

Submitted by Jody Skidmore’s third-grade science class, North Cow Creek Elementary School, North Cow Creek Elementary School District.

- C. After all products have been discussed, tell students that the products are not what they appear.
- Tell students what each product really is and bring out its safe look-alike.
 - Ask, “How were you fooled by the unsafe products?” *They looked like food or drink.*
 - Have students identify exactly what characteristics led them to believe that the substance was a safe one (e.g., color, shape, container).
 - After discussing the safe and unsafe products, explain to students that you have carefully labeled the unsafe products in each jar so you would know what they are.
 - Show students the labels that you placed on top of the jars.
 - Tell students that now that this part of the lesson is over, you will place each of the unsafe products back in their original containers.
 - Ask students why this is important to do. Lead students to conclude that all household hazardous products should remain in their original containers so their owners will always know what is in the containers and can read any caution labels. (Students will learn how to read caution labels in Lesson 2.)

Safety Note: Be sure to put the unsafe products in a locked cupboard or on a high shelf where students cannot reach them.

- D. Remind students that because some unsafe products can look like something good to eat, it is important for them never to put anything in their mouths unless an adult gives them permission. Students should also understand that they should not smell or touch household hazardous products, because some can hurt them if they inhale the product or get some on their skin.
- E. Tell students they are going to learn a little song about what they should do before eating things they find on the street or somewhere in their homes. The song also teaches them not to touch any household hazardous product. (In Lesson 2 students

will learn how to tell whether a product is hazardous.)

- Ask students whether they know what they should do before eating or drinking something that was not given to them by an adult? *Yes, we must ask whether we could eat or drink it.*
- Lead students in singing the following song. (Older students can make up their own song.) The song can be written on the chalkboard for students to read.

We Ask First

(Sung to the tune of “Three Blind Mice”)

We ask first,
 We ask first,
 What we may touch,
 What we may eat,
 Even though it might look so good,
 We have to remember as wise children should,
 Not to touch or put things in our mouths,
 ‘Till we ask first.

DISCUSSION/QUESTIONS

Tell students they are going to play a game called “Just Suppose.” Share a scenario and have them say what they should do. Older students could record in their journals their answers for one or more of the scenarios.

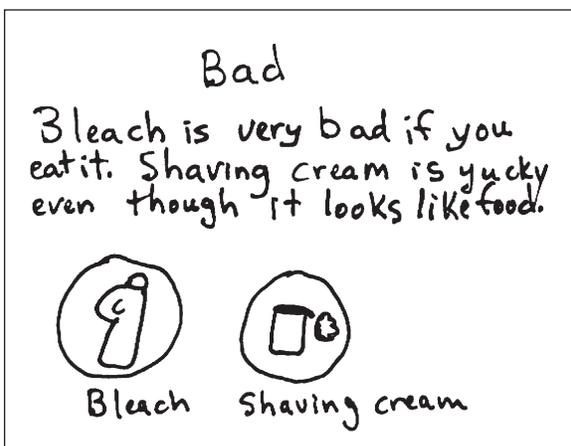
1. Just suppose you were playing with a friend and you saw him or her pick something up off the floor and put it in his or her mouth. What should you do? *Get an adult and tell him or her what happened. Ask an adult about it. Tell why. The thing on the floor could be poisonous.*
2. Just suppose you went into your garage after your mom or dad finished painting a cupboard and you saw an open soda bottle near an empty paint can. You were very thirsty and the soda bottle looked as if it was full. What should you do? *Do not drink it. Ask your mom or dad about it. Tell why you should not drink it. It could be poisonous.*
3. Just suppose you went into the bathroom of your home and found some tasty looking things in an opened container. You were hungry for some candy, and this looked like

the stuff you had last week. What should you do? *Do not eat it. Ask an adult about it. Tell why you should not eat it. It could be medicine that could be poisonous.*

4. Just suppose you were playing in the backyard with your baby brother and you saw him put something in his mouth. It looked like food, but you were not sure, and mom had just finished putting some poisons out to kill some garden bugs. What should you do? *Go tell your mom or dad or other adult. Tell why you should tell an adult. It could be poison that my baby brother ate.*



Submitted by Kathy Jones, second-grade teacher, Shasta Elementary School, Chico Unified School District.



Submitted by Kathy Jones, second-grade teacher, Shasta Elementary School, Chico Unified School District.

APPLICATION

- A. Ask students to do the following:
- Describe or draw in their journals some products that are okay to eat and those that should not be touched, smelled, or eaten.
 - Share their journal entries.
- B. Show students a soda bottle of the orange liquid. Tell them that you found this in your garage.
- Ask students if it is okay to drink what's inside the bottle; after all, "It's in a soda bottle, so it must be safe to drink." *No, it is not okay to drink. It might be poisonous.*
 - Encourage students to describe why it might not be safe to drink. *How would you know that what is in the bottle is really soda? Someone could have used the bottle to put something else in that could be poisonous.*
 - Ask what students should do if they see a soda bottle with a liquid in it that is under the sink or in the garage? *Do not touch it. Ask your parents or guardians about it. Ask them to label what is in it and put it away on a top shelf. Ask:*
 - Where should poisonous items be kept? *On a high shelf or in a locked cabinet. (This topic will be addressed in Lesson 2.)*
 - What should I do with the liquid in the soda bottle? *If possible, pour it back in its original container; otherwise label it clearly. (You might need to lead students to answer this question correctly.)*

Homework Assignment: Ask students to ask their parents or guardians whether they noticed how some poisonous products (like certain cleaning supplies) can look like food or drinks. They should have their parents or guardians show them some poisonous products to avoid and to help them write down what foods some of these products look like. Send home with students a letter explaining the homework assignment to parents or guardians.

Note: See "Letter To Parents or Guardians" by Christina Lucas on page 210.

House Poisons That look like food

Glue - frosting
Brown paint - pudding
Rat poison - Bread crumbs
Pills - candy
Weed Killer - Kool-aid
Epsom salt - salt
Shaving cream - whipped cream

Submitted by Kathy Jones, second-grade teacher, Shasta Elementary School, Chico Unified School District.

- C. Ask students to share their homework assignments. Then have students add to the list of unsafe products that the class generated in "Pre-Activity Questions."

Unsafe Products:

<i>antifreeze</i>	<i>oil-based paint</i>
<i>batteries</i>	<i>oven cleaner</i>
<i>bleach</i>	<i>paint thinner</i>
<i>carpet cleaner</i>	<i>roach spray</i>
<i>disinfectant</i>	<i>slug bait</i>
<i>laundry soap</i>	<i>window cleaner</i>

Submitted by Christina Lucas, second- and third-grade teacher, Baywood Elementary School, San Luis Coastal Unified School District.

- D. If you were able to obtain information from your local poison control center, photocopy appropriate sections and send these home with students.
- E. Ask students to write a sentence or two in their journals about what they have learned in this lesson. They can also draw a picture. Have them share their journal entries in small groups. Check each student's writing.

RESOURCE

Toxics in My Home? You Bet! Local Government Commission, 909 12th St., Sacramento, CA 95814; (916) 448-1198.

Describes hazardous products in a home.

BACKGROUND INFORMATION FOR THE TEACHER

hazardous products. It is our responsibility to make certain that children, as well as pets, are not exposed to hazardous products.

Household hazardous products can sometimes be mistaken for food. How hazardous these materials are cannot be determined by sight, smell, or taste. Disinfectant can look like apple juice; radiator coolant is sweet to the taste and looks like mouthwash. These products are dangerous to people, domestic animals, pets, and wildlife.

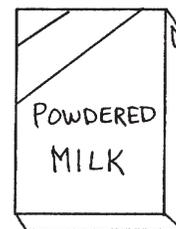
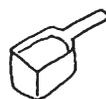
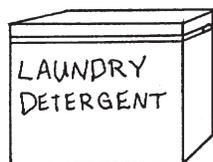
Students should be aware that some household hazardous products might look like food and that they should always ask an adult whether

they can eat something if they have any doubt about what the item is. Because people sometimes store household hazardous products in a labeled container that previously held food or drink (e.g., a gallon milk jug), children should be warned not to eat or drink anything they find in the garage or under the sink.

TABLE OF UNSAFE PRODUCTS AND THEIR SAFE LOOK-ALIKES

Unsafe products	Their safe look-alikes
Ant and roach paste	Peanut butter
Bleach, drain opener, alcohol	Water
Disinfectant	Apple juice; orange drink
Laundry detergent	Powdered milk or powdered sugar
Lemon furniture oil/lemon ammonia	Lemon-flavored drink
White medicine in tube	Toothpaste (Use unfamiliar brand.)
Mothballs	Marshmallows (small size)
Moth crystals	Rock candy
Pills (colored)	Candy
Radiator flush	Canned soda (Use unfamiliar brand.)
Rat poison/squirrel bait	Oatmeal
Red furniture oil finisher	Cherry soda
Slug killer	Cereal
Windshield washer	Blue sports drink

K-3 Module
Unit 5



LETTER TO PARENTS OR GUARDIANS

by Christina Lucas

Dear Parent or Guardian,

We are studying about poisonous materials found in and around the home. We know that some poisons can look just like food, but are really dangerous substances. For example, powdered laundry detergent can look like powdered milk or sugar. We have been talking about not “exploring,” touching, smelling, or tasting the unknown material, but rather checking with an adult first! Please ask your child to “teach” you what he or she has learned at school these past two days.

The students have been asked to go on a “detective search” with an adult to identify hazardous items at home that they should avoid. Please join your child in this search and help him or her write such items found at home in the red “Hazardous Materials” journal.

Many people often store household hazardous substances in a container that previously held food or drink. The students are learning not to eat or drink anything they find in the garage or under the sink. They know that they should check with an adult whenever they find a questionable substance. An adult “knows what to do!” If you have hazardous products in a food container (e.g., milk jug), please consider clearly labeling the contents (for example, “antifreeze”) and then place the dangerous materials away from children’s reach.

Thank you for your continued interest and support!

Mrs. Lucas

For your reference, the telephone number for our San Luis Obispo poison control center is 1-800-876-4766 (24 hours).

Each year thousands of young children are poisoned accidentally. Many suffer serious injuries and some die from swallowing medicines, polishes, pesticides, drain cleaners, bleach, and other household